



Pre-Algebra Workbook

Numbers and negative numbers

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MATH

NUMBER SETS

- 1. The number 0 is included in all the number sets except _____ numbers.
- 2. The numbers 0, 1, 2, 3 are considered _____ numbers.
- 3. Positive and negative whole numbers are called _____.
- 4. Fractions and decimals can be considered _____ numbers
- 5. Given the odd number set $\{1, 3, ?, 7\}$, what is the missing number?
- 6. The number set $\{2, 4, 6, 8\}$ shows a set of _____ numbers.
- 7. What is the real number that's halfway between 1 and 2?



■ 8. The number sets that include negative numbers are _____, _____, _____, and _____ numbers.



IDENTITY NUMBERS

- 1. Find the sum.

$$4 + 0 =$$

- 2. Find the product.

$$15 \cdot 1$$

- 3. The identity number for addition is 0 because when you add 0 to a number the value does _____ change.

- 4. The _____ number for multiplication is 1 because when you multiply a number by 1, the value does not change.

- 5. Given the problem $10 + 0 = 10$, the 0 is the identity number for _____.

- 6. Given the problem $20 \cdot 1 = 20$, the 1 is the identity number for _____.



■ 7. When you add 0 to a number, how would the point move on a number line (move to the left, move to the right, or stay the same)?

■ 8. When you look at the problem $8 \cdot 1 = 8$, this means that there are 8 items in _____ group(s).



OPPOSITE OF A NUMBER

■ 1. What is the opposite of -15 ?

■ 2. What is the opposite of 22 ?

■ 3. What is the opposite of $2/3$?

■ 4. Complete the statement.

Opposites are numbers that are equal distance from _____.

■ 5. What is the only number that is its own opposite?

■ 6. Complete the statement.

When looking at a number line, the negative numbers are to the _____ of 0 and the positive numbers are to the _____ of 0 .



■ 7. Complete the statement.

We know 5 and -5 are opposite numbers because they are both _____ units away from 0.

■ 8. What is the opposite of -5.3 ?



ADDING AND SUBTRACTING SIGNED NUMBERS

- 1. Simplify the expression.

$$-4 + 2$$

- 2. Simplify the expression.

$$-11 - 8$$

- 3. When you add two negative numbers, you'll always get a _____ number.

- 4. Simplify the expression.

$$-19 - 26$$



MULTIPLYING SIGNED NUMBERS

- 1. Complete the statement.

Multiplying two negative numbers will always result in a _____ number.

- 2. Complete the statement.

Multiplying a negative and a positive number will always result in a _____ number.

- 3. Complete the statement.

Multiplying two positive numbers will always result in a _____ number.

■ 4. $12 \cdot -5$

■ 5. $-8 \cdot -6$

■ 6. $-3 \cdot 5$



$$\blacksquare 7.25 \cdot 3$$



DIVIDING SIGNED NUMBERS

■ 1. Complete the statement.

Dividing a negative number by a positive number will always result in a _____ number.

■ 2. Complete the statement.

Dividing a positive number by a positive number will always result in a _____ number.

■ 3. Complete the statement.

Dividing a negative number by a negative number will always result in a _____ number.

■ 4. Complete the statement.

Dividing a positive number by a negative number will always result in a _____ number.

■ 5. Simplify the expression.



$$-12 \div 2$$

- 6. Simplify the expression.

$$45 \div 5$$

- 7. Simplify the expression.

$$-64 \div -8$$

- 8. Simplify the expression.

$$24 \div -6$$

- 9. Simplify the expression.

$$-144 \div -12$$



ABSOLUTE VALUE

- 1. Simplify the expression.

$$|-4|$$

- 2. Simplify the expression.

$$|75|$$

- 3. Simplify the expression.

$$|-6-5|$$

- 4. Simplify the expression.

$$|-6|-|7|$$

- 5. Simplify the expression.

$$|-5 \cdot 4|$$

- 6. Simplify the expression.



$$|-5| \cdot |4|$$

- 7. Simplify the expression.

$$|-11 + 3| \cdot |-9|$$

- 8. Simplify the expression.

$$|-8 - 2| \cdot |-4 - 3|$$



